## REMARKS

Claims 1-32 are pending in this application. Claims 1, 10, 11, 20, and 29-32 are independent. The applicant has amended claims 1-9, 11-21, 23, and 25-28, canceled claims 31 and 32, and added claims 33-36.

We have addressed the examiner's objection to claim 31 as being a substantial duplicate of claims 11 to 19 by canceling claim 31.

§112, first paragraph rejections

The examiner has rejected claims 10 and 30 as failing to comply with the enablement requirement. The applicant disagrees. The Federal Circuit has stated that:

> The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988).

Indeed, one skilled in the art would know, using no more than common background skill and knowledge, how to make or use a nonlinear system using the disclosure provided by the applicant coupled information known in the art without undue experimentation. necessary. We submit that a detailed description of a specific implementation is not required to satisfy the enablement requirement.

§101 rejections

The examiner has rejected claims 1-9, 11-29 and 32 under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter. The examiner has indicated, however, that claims 1-9, 11-19, and 32 would be statutory if rewritten in the manner suggested

by the examiner. We have adopted the examiner's proposed suggestions in the amendments to claims 1-9 and 11-19. With such amendments, these claims should now be patentable.

Prior Art Rejections

The examiner has rejected claims 1, 2, 4 and 6 under 35 U.S.C. 103(a) as being unpatentable over Tong et al. (U.S. 5,995,565) in view of Keefe et al. (U.S. 5,885,225) and further in view of Mansour et al. ("Frequency domain non-linear adaptive filter," IEEE, 1981). The applicant disagrees.

We submit that none of the references, separately or in any proper combination, describe or suggest a computer implemented method (claim1) or a computer program product (claim 20) including the step of "calculating, using a frequency domain description of said output signal, for example, the output spectrum, expressed in terms of a frequency domain description of said input signal and coefficients of a time or spatial domain description of a generalised non-linear system, the coefficients of the time or spatial domain description of the generalised non-linear system in order to give affect to the energy transfer," as recited in amended independent claims 1 and 20.

The examiner also rejected claims 10-12, 14, 16, 20, 21, 23, 25, and 29-32under 35 U.S.C. 103(a) as being unpatentable over Tong et al. in view of Keefe et al. and further in view of Mansour et al. and Pierce (U.S. 5,703,313).

We submit that none of the references, separately or in any proper combination, describe or suggest a data processing system including "means for calculating, using a frequency domain description of said output signal, for example, the output spectrum, expressed in terms of a frequency domain description of said input coefficients of a time or spatial domain description of a generalised non-linear system, the coefficients of the time or spatial domain description of said generalised non-linear system in order to give effect to the energy transfer," as recited in amended claim 11. Similarly, none of the references describe or suggest a non-linear system including "means for giving effect to the energy transfer using coefficients of a time or spatial domain description of a generalised non-linear system, said coefficients having been calculated

using a frequency domain description of said output signal, for example, the output spectrum, expressed in terms of a frequency domain description of said input signal and coefficients of a time or spatial domain description of a generalised non-linear system," as recited in amended claim 29.

The examiner seems to have focused on the nonlinear systems in the cited references rather than on a method for designing such nonlinear systems. In this sense, the examiner has misinterpreted the applicant's invention. Similarly, the examiner seems to have considered the design process only in the time or frequency domains and did not consider any designs in the spatial domain. A critical aspect in the generalised design of a nonlinear system according to the embodiments of the present invention is the calculation of coefficients of the time or spatial domain description of the generalized nonlinear system using a frequency domain of an input signal and such coefficients of a time or spatial domain description of the generalized nonlinear system. The references cited by the examiner, on their own and combined, lack the features discussed above in claims 1, 11, 20, and 29. Therefore, no combination of the references cited by the examiner would have obviated the features of these independent claims.

We further submit that because claims 2-10 and 30 depend from independent claim 1; claims 12-19 depend from independent claim 11; and claims 21-28 depend from independent claim 20, these dependent claims should be patentable for at least the same reasons as claims 1, 11, and 20 are patentable.

The fact that the applicants have addressed certain positions of the examiner does not mean that the applicants concede other stated positions of the examiner. The fact that the applicants have made arguments for patentability of claims does not mean that the applicants concede that there are not other good reasons for patentability of those claims or other claims.

Attached is a check for $36.00 for excess claim fees. Please apply any charges or credits to deposit account 06-1050, reference 12304-002001.

Respectfully submitted,

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